

Utilization of trees, cyanobacteria, and regolith for habitation on Mars

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We have been studying how to use microorganisms, nitrogen-fixing plants, and trees for achieving habitation in extraterrestrial environments. Several reports state that the first candidate organisms to be introduced into the environment of Mars would be cyanobacteria. We had already found that a cyanobacterium and some plants could grow on Martian regolith simulants. Here, we propose the developmental utilization of tree components, cyanobacteria, and Martian regolith simulants for the construction of future habitats that are specific to the Martian environment. This study is related to the “local production of all necessary materials.”

Keywords: cyanobacteria, tree, regolith